

THE SEEDLESS ORANGE

A FORTUNATE SERIES OF ACCIDENTS
GAVE IT TO CALIFORNIA.

An Industry Revolutionized Within
Twenty-five Years by Shoots Brought
From Brazil—Cities Built and Mil-
lions of Wealth Created.

Twenty-five years ago there were no seedless or navel oranges grown. A few oranges were raised in Florida, but the bulk of the supply in America came from the Mediterranean ports and the fruit was expensive. The total annual yield of California oranges was less than five carloads. Now the annual orange yield in California is upward of 15,000 carloads, and next year it may exceed 20,000 carloads, writes a correspondent of the New York Sun from Pomona. The total amount invested in orange properties in California twenty-five years ago was about \$23,000. Now something like \$43,000,000 is invested in the orange industry in this State, and the amount is increasing by about \$2,000,000 every year. The introduction of the seedless navel orange has caused these changes. It has revolutionized the orange industry of the United States. It has drawn 13,000 men out of other pursuits. It has transformed vast areas of sunbaked land in California into the most beautiful orange groves that ever grew. It has been the prime factor in the growth from nothing of a dozen towns of 5,000, 8,000 and 10,000 people in southern California, and it has added directly more than \$43,000,000 and indirectly \$60,000,000 more to the taxable wealth of this State.

The first seedless orange trees were apparently freaks of nature. Their counterparts have never been found. In the summer of 1872 William F. Judson, United States Consul at Bahia, Brazil, heard an account from natives of a few trees in the swamps on the north bank of the Amazon some sixty miles inland that bore oranges without seeds. He was of scientific bent and a Consul that knew his business. He had heard of the starting of orange groves in Florida and he believed that seedless orange trees were well worth experimenting with there. So he sent a native up the river to cut some shoots of the trees and get some of the fruit. When the native returned the Consul was delighted with the specimens. Forthwith he sent six of the orange tree shoots, carefully packed in wet moss and clay, to the Agricultural Department at Washington for propagation. The trees did not excite as much attention in the Department as the enthusiastic Consul had expected. Two of the shoots, which were no bigger than horsewhips, died from lack of care in the Department grounds, and the others were almost forgotten in a few months. In the winter of 1873 Mrs. Horatio Tibbetts, a native of Maine, was visiting the family of her cousin, General Benjamin F. Butler, then a Congressman from Massachusetts. Her husband had recently removed from Boston to Los Angeles, Cal., and was about to pre-empt a tract of Government land in the San Bernardino Valley. The scheme was an uncertain one, but anyhow he intended to grow semi-tropical fruits there. He asked Mrs. Tibbetts to get from General Butler an introduction at the Agricultural Department. She was then to ask for specimens of fruits and shrubs suitable for experimental propagation in southern California. Among other things Mrs. Tibbetts got from the Department grounds the four surviving orange tree shoots from Brazil. The trees reached Mr. Tibbetts safely at Riverside, Cal., a week later and were immediately planted. That was in December, 1873. One of the shoots died from neglect and another was broken and chewed up by a cow.

Five years passed and the two surviving trees came into bearing. In the winter of 1878-79 they bore sixteen oranges, the first seedless oranges ever grown in North America. The specimens were carried about southern California and shown to all ranchmen and fruit growers. There were many who doubted whether the trees would annually bear such royal specimens of orange culture. Nearly every one believed that the fruit would become coarse and tough in a few years more. So the second crop was awaited with curiosity among the neighbors. There were about a box of oranges in the second yield, and they were even better than those of the first crop. The fame of the Tibbetts seedless oranges went far and wide in southern California. People who were growing the old-fashioned oranges traveled hundreds of miles in wagons to see the trees. Still there were less than half a dozen people who believed that such a freak as a seedless fruit could ever be propagated into an established industry.

"I remember the time I saw some of the second crop of Tibbetts' seedless navel oranges," said ex-Senator J. E. McComas. "Several of us seedling orange growers went over to Riverside purposely to see what truth there was in the statement that Horatio Tibbetts had trees that grew oranges without seeds. We looked the two trees over and over, sampled the fruit and wondered how it could be. Larger, juicier and more pungent fruit we had never known. But it all seemed so freaky that no one dared risk several thousand dollars and six or seven years in trying to grow navel oranges for market. Moreover, none of us knew how to go about having a grove of seedless oranges because there was no seed to start it."

Mr. Tibbetts was sure that there was a fortune in his new variety of oranges. For two years he experimented with propagating trees from shoots and cuttings from his two seedless orange trees. But all his attempts were failures. Finally he hit

upon the scheme of budding from the seedless navel trees upon seedling trees. Experiments along that line were successful. It was found that a bud taken from one of Tibbetts' two navel orange trees and grafted into the bark of a seedling tree would grow to be a limb, which bore seedless navel oranges. Then Mr. Tibbetts grew tiny seedling orange trees, just as had been done by orange growers for ages, and budded into the trunk of each little tree several navel orange buds. When the buds had become branches of the trees, he cut away all the original or seedling branches, leaving only the navel orange branches to bear fruit. In this way he easily created navel orange trees, and the problem of growing seedless oranges was solved.

The planting of groves of seedless orange trees propagated from buds from the two original trees on the Tibbetts place began in earnest throughout southern California in the winter of 1882. In the following year the demand for buds from the Tibbetts trees was so large that a dozen buds sold frequently for \$5, and some growers, desirous of getting navel orange buds of genuine quality, paid \$1 each for buds. In 1884 the two Tibbetts trees furnished buds that sold for \$1500, and a tall fence was built about them to keep people from stealing buds. A year or two later the orange trees that had been propagated from the Tibbetts trees began to bear, and they themselves furnished tens of thousands of navel buds as good as those from the original trees. Then the first navel orange groves began to bear fruit, and from that time the boom in navel orange groves has continued. No one plants seedling orange trees nowadays, and tens of thousands of seedling trees have been budded into navel orange trees.

The two trees from which have come, directly and indirectly, all the navel oranges in the world, are still on the old Tibbetts ranch in Riverside. Since Mr. Tibbetts received the shoots from the Agricultural Department and began propagating seedless oranges, Riverside has grown from a hamlet of less than thirty American residents to a beautiful, prosperous city of 14,000 population, with an assessed valuation of \$8,275,000. It is the greatest orange-producing locality in the world. Some 10,000 acres of land is devoted to orange growing. The average annual shipments of oranges from Riverside are 1,600,000 boxes, valued at \$2,100,000. All this has come from the introduction of Tibbetts' seedless navel oranges, and just now the Riverside Press and the leading citizens are urging that the two trees should be removed to the public park and there surrounded by an iron fence, so that the interesting history of the seedless navel orange may be the better preserved in another generation.

Looking After Its Soldiers.
A young army officer, who has seen service on the Arizona plains and on the Maine coast, and who is now in Cuba, tells two stories out of his own experience, to show the accuracy with which the War Department follows the movements of officers.

"I was with a small scouting party in Arizona," he says, "and after two weeks in the desert my squad came to the railroad near a small station. Within ten minutes a dispatch from Washington was brought to me by the station agent. It asked if I wished to be transferred to one of the two new artillery regiments then forming."

"I answered by telegraph that I should be glad to enter either of them. Then we set off again across the desert.

"It was six days later when we again struck the railroad, this time eighty miles from the point at which we had previously crossed it. But my reply from the department was awaiting me. It had been telegraphed to every station within two hundred miles.

"A more striking instance of accuracy occurred after my transfer to the East. I was traveling home on leave, and as the regulations require, I had notified the department of the day, hour and probable route of my journey. After I had been on the train for eight hours, at a small station the porter entered with a telegram, asking if any one of my name was present. On opening the dispatch, I found that it was from the adjutant-general's office, ordering me on detached duty.

"Exactness of detail could not be carried much farther. The department knew the whereabouts of an insignificant second lieutenant, even when he is traveling on leave of absence."

Flapping of an Insect's Wings.
The slow flapping of a butterfly's wings, according to Sir John Lubbock, produces no sound, but when the movements are rapid a noise is produced, which increases in shrillness with the number of vibrations. Thus the house fly, which produces the sound F, vibrates its wings 21,120 times a minute, and the bee, which makes a sound of A, as many as 23,400 times. Professor Narey, the naturalist, has succeeded by a delicate mechanism in confirming these numbers graphically. He fixed a fly so that the tip of the wing just touched a cylinder which was moved by clockwork.

Cut Both Ways.
In an interval in the drilling one of the volunteers belonging to a crack regiment stepped out from the ranks to light a cigar from that of his officer. The latter took this evidence of the democratic spirit of freedom in good part, but said by way of a hint: "In the regular army you couldn't have done this to an officer, Brown."

"Right you are," responded the private, "but in the regular army you couldn't be an officer."

THEIR QUARREL.

Why His Sweetheart Couldn't Love Him as of Yore.

"After all," he said to himself, as he walked along the avenue, "I may as well give in. It's a small matter, anyway, and not worth coming between us, even for an hour."

They had quarreled the night before. One thing had led to another, until he had left her, outwardly cold and inwardly passionately angry. They were both a bit obstinate, may be.

But he had time to think it over, and the folly of it burst upon him in all of its ridiculous aspect. Because he had mildly hinted that a first cousin of hers—a rather aggressive chap, too—should not, considering their engagement, take her to the matinee, she had resented the suggestion with some sarcasm. Not that he particularly minded, as he tried to explain, but he thought she should have told him first. He had replied to her cutting words that she, of course, could do as she pleased, but that her respect for him should at least have guarded her from this. Whereupon she had risen upon her dignity and the storm burst in all its fury.

But now he would admit he was wrong and have it over with. The first cousin wasn't formidable enough to inspire him with any jealousy; and as for the principle of the thing, why, that was something that could be abandoned easily enough.

There was a slight strain of pride, mingled with a natural humbleness in his voice, as he came over and stood by her as she stiffly entered the room, with her face averted and no signs of surrender on her part.

"Dearest," he said quietly, "I was wrong last night. Believe me, I did not mean all that I said. It wasn't that I was jealous, but I thought—Well, never mind what I thought. But, of course, I had no right to rule you in such a manner, or to be so arbitrary. Will you forgive me?"

Her eyes met his, slowly and in some surprise. There was a slight pause. "Why, yes," she said at last; "I suppose I shall have to."

It was natural and proper then that he should kiss her.

What happened during the next half hour is of no consequence, except in so far as it differed from what usually happens when two people who love each other are alone. And that it did differ he felt acutely to himself, though he was not able to define the reason.

She was not the same. She had accepted his apology with apparent grace, and yet there was lacking that subtle something which she had never before withheld from him.

"Dear," he said, finally, "what is the matter? Don't you love me?"

"Why, of course," she replied.

He shook his head. "You don't love me as much as you did," he persisted, "before—before last night."

"Well, no," she admitted. A tear stood in her eye.

"Tell me, darling," he said, "what is the matter?"

"I was only thinking," she said sadly, "how much more I could have loved you if you hadn't admitted that you were wrong!"—Tom Masson, in Puck.

Clever Idea of the New Bride.
Out in a big apartment house on Columbia Heights, not a thousand miles from the corner of Binney street, there dwells a young married woman who is as naive as the bride in the comic weeklies. The housekeepers who live in the same house with her have been somewhat annoyed of late by mice. The young woman met one of them in the hall the other day, and the conversation naturally turned on their common pests.

"The mice have been so bad lately," said the elder woman, "that I keep everything locked up and all my eatables in the boxes."

The younger woman's eyes sparkled with eagerness.

"My!" she said. "I wouldn't dare do that. I wouldn't want to run such a risk. I leave crackers and cheese lying about every night when I go to bed so that when the mice come hungry they'll find something to eat, and not gnaw things. I'm always afraid they'll bite holes in my new tablecloths and my nice centrepieces if I don't leave the cheese right where they can find it easily. I feel perfectly safe when I know there's plenty for them to eat right where they can get at it."

There's nothing after all like having a clever idea like that now and then.—Washington Post.

Just the Thing.
Our colonial roads were usually but rude paths through the woods, often made at the time by the traveling emigrant. On such roads the pack-horse and the rude pack-saddle were indispensable in all removals of worldly goods. Mr. Thomas Speed, in "The Wilderness Road," thus describes the saddle:

It was a rude contrivance made of a forked branch of a tree, and was quite in keeping with the primitive simplicity of the times. When fastened upon a horse, it became the receptacle of the goods and chattels to be transported. Thus were carried provisions for the journey, and household stuff and utensils needed to make life tolerable when the journey was at an end, and the place of residence selected.

RELIABLE DAIRYMEN.

DIRECTORY OF LEGITIMATE DEALERS.

The following dairymen are known to the Editor of the CITIZEN as reliable producers, who own their herds of cattle and deliver their own product. There are no milk Hucksters in this list.

BENNING FARM DAIRY,
J. P. REILLY, Proprietor.
Benning, - - - D. C.

Established 1892. Pure milk right from the farm served in sealed jars twice a day. Customers are invited to inspect my dairy at their pleasure.

HILLOCK DAIRY,
JOHN BERGLING, Proprietor.
Mt. Olivet Road, D. C.

Established 1894. Pure milk served to my customers fresh from the dairy every morning.

Chevy Chase Farm Dairy,
GEO. A. WISE, Proprietor.
Chevy Chase, - Maryland.

Established 1881. I try to serve the very best quality of milk it is possible for a man to produce. My herd and dairy farm are open to inspection at all times.

AGER'S FARM DAIRY,
J. B. AGER, Proprietor.
Hyattsville, Maryland.

Established 1879. I have a herd of thirty-five cattle—mostly Jersey's—and deliver whole milk fresh from the farm every morning.

GUDE'S DAIRY,
ALEX. GUDE, Proprietor.
Hyattsville, Maryland.

Established 1884. Pure milk delivered fresh from the farm every morning.

OAK GROVE DAIRY,
D. McCARTHY, Proprietor.
Bladensburg Road, D. C.

Established 1885. Fresh milk delivered direct from my dairy farm every morning.

St. John's Park Dairy,
Harry Harriet Hatcher, Prop.
Brookland, D. C.

Established 1899. Pure milk delivered every morning. We invite an inspection of our place at all times.

CHEVY CHASE DAIRY,
H. G. CARROLL, Proprietor.
Chevy Chase, - Maryland.

Established 1897. Fresh milk direct from the farm served to customers every morning. An examination of my premises invited at all times.

BURLEIGH DAIRY,
JOHN HERRIGAN, Proprietor.
3601 O Street N. W.

Established in 1895. Dairy farm on New Cut Road or T street extended. Pure milk from my own cattle. Two deliveries daily. Prompt service.

CEDAR GLEN DAIRY,
P. H. HORN, Proprietor.
Benning, D. C.

Established 1890. Milk delivered twice a day. Attention paid to milk.

SUITLAND DAIRY,
E. L. HILL, Proprietor.
Suitland, Maryland.

Established 1893. Pure milk straight from the farm delivered every morning. Milk for Babies and Children a specialty.

GRAND VIEW DAIRY,
JOHN S. ORRISON, Proprietor.
Takoma Park, D. C.

Established 1895. The quality of milk I serve is gaining me new customers every day. My place will always bear inspection.

RUPPERT FARM DAIRY,
J. O'KEEFE, Proprietor.
Brightwood Avenue, - D. C.

Established 1896. I own my own herd of cattle and make two deliveries a day. My dairy plant and milk will always bear inspection.

BRIGHTWOOD DAIRY,
MRS. C. ROBINSON, Proprietor.
Brightwood, D. C.

Established 1896. We deliver morning's milk only every morning. Our night's milk is all sold to dealers.

GRANBY FARM DAIRY,
BARRETT BROS., Proprietors.
Bunker Hill Road, - Maryland.
(P. O. Brookland, D. C.)

Pure milk and cream, delivered to any part of the city. Prompt delivery. Satisfaction guaranteed.

Sligo Mill Road Dairy,
ISAIAH KREGLO, Proprietor.
Woodburn, - D. C.

(P. O. Address, Mt. Pleasant, D. C.)

Established 1896. I serve pure milk right straight from the farm every morning. An inspection of my methods and dairy solicited.

JERSEY DAIRY,
D. ALLMAN, Jr., Proprietor.
2111 Benning Road.

Established in 1893. The present proprietor was born and brought up in the business. Has a herd of 27 Jersey cattle. Two deliveries a day throughout the city.

Crystal Spring Dairy,
HUGH McNAHON, Proprietor.
Brightwood, D. C.

Established 1888. I have Jersey cows only and serve the very best milk I can produce. If you want to see a fine herd of cattle, come and see mine.

HOYLE'S FARM DAIRY,
MRS. A. J. HOYLE, Proprietor.
Congress Heights, - D. C.

Established 1894. We serve first-class milk all bottled on the farm. Dairy always open to inspection.

Buena Vista Dairy,
O. A. LANDON, Proprietor.
Suitland Road, near Suitland, Md.

Established in 1890. I am on the farm with fifty head of cattle and deliver only pure milk that will always bear inspection.

SUITLAND DAIRY,
E. L. HILL, Proprietor.
Suitland, Maryland.

Established 1893. Pure milk straight from the farm delivered every morning. Milk for Babies and Children a specialty.

CHILLUM FARM DAIRY,
WM. McKAY, Proprietor.
Woodburn, (Terra Cotta), D. C.

Established 1890. I serve pure milk right from the farm every morning. I think the best is none too good for my customers.

Douglas Place Farm Dairy
EDW. PARKHAM, Proprietor.
Douglas Place, Benning Road, D. C.

Established 1893. I spare neither pains nor expense in trying to produce milk that is a No. 1 in quality. Plants always open to inspection.

TERRELL'S DAIRY.
A. TERRELL, Proprietor.
Arlington, Virginia.

Established 1891. I serve milk straight from the farm every morning. My milk will stand the test every time.

Glen Ellen Farm Dairy,
GEO. T. KNOTT, Proprietor.
Conduit Road, D. C.

Established 1890. Milk from my dairy is guaranteed to be both clean and pure. I always solicit the closest inspection.

GREEN HILL DAIRY,
W. B. WILLIAMS, Proprietor.
Riggs Farm, Maryland.
(P. O. Address, Chillum, Md.)

Established 1893. I serve pure milk straight from the old established Riggs Farm every morning. Come out and inspect the place at any time.

PAYNE'S FARM DAIRY,
M. J. PAYNE, Proprietor.
Bladensburg, - Maryland.

Established 1890. It is my aim to serve my customers with the very best quality of milk. I invite an inspection at any time.

PALISADES DAIRY,
W. L. MALONE, Proprietor.
[Conduit Road, D. C.]


Established 1892. Pure milk and cream served in any part of the city every morning. All orders by mail promptly attended to.

NANCY HANKS'S MEMORIAL.
Arrangements to Preserve the Grave of Lincoln's Mother.

Rockport, Ind. (Special).—Governor James A. Mount and the Indianapolis members of the Nancy Hanks Memorial Association met the Spencer County Commissioners and the citizens of Rockport and Lincoln County and agreed upon the purchase of sixteen acres of original forest surrounding the grave of the mother of Abraham Lincoln.

The county will purchase the land and the association will then ask the next Legislature to appropriate a sufficient amount to park the grounds.

Monarchist Conspiracy in Brazil.
The Brazilian Government at last admitted that conspiracy against it existed and that monarchists furnish money to enlist the armed forces.



WORKING MEN.....

cannot afford to lose any time. Sick or well, they have to go to work early in the morning and often get home late. The loss of a single day means a thinner envelope on pay day and perhaps extra family privation. The confinement and bad ventilation of the workroom, together with the cold dinners many of them are obliged to eat, have a bad effect on the physical system and lead on to ill health.

Ripans Tabules are just what working men need. They keep the stomach in good condition and help digest the food; they keep the bowels open, and the liver active. No man is too poor to use them, for ten of the Tabules (enough to last several days) cost only five cents at any drug store.

WANTED:—A case of bad health that R-IP-A-N-S will not benefit. They banish pain and pro-duce life. One dose relieves. Note the word R-IP-A-N-S on the package and accept no substitute. R-IP-A-N-S, 10 for 5 cents, may be had at any drug store. Ten samples and one thousand testimonials will be mailed to any address for 5 cents, forwarded to the Ripans Chemical Co., No. 19 Spruce St., New York.